

IN THE CLAIMS:

Please cancel Claims 14, 15, and 18 without prejudice to or disclaimer of the subject matter presented therein. Please amend the claims as shown below.

1. (Currently Amended) A ~~substrate of a target substance detection element to be used for~~ a detection apparatus for detecting a target substance in a specimen, utilizing surface plasmon resonance, comprising:

a target substance detection element, including: a base; and a metal structure arranged on a surface of the base in a localized manner; said; and a target substance capturing body fixed on a surface of the metal structure, wherein the metal structure having has a loop section or a crossing section, and the metal structure has a thickness between 10 nm and 100 nm;

means for bringing the element into contact with the specimen; and
detection means for detecting the target substance captured by the element by irradiating the element with light emitted from a light source and observing transmission of the light.

2. (Currently Amended) The ~~substrate~~ apparatus according to claim 1, wherein ~~said~~ the metal structure has a largest length between two edges that is found within a range not smaller than 10 nm and not greater than 1,450 nm.

3. (Currently Amended) The ~~substrate~~ apparatus according to claim 2,

wherein the largest length between two edges is found within a range not smaller than 50 nm and not greater than 450 nm.

4. (Currently Amended) The ~~substrate~~ apparatus according to claim 1, wherein it comprises a plurality of metal structures that are spaced apart from each other.

5. (Currently Amended) The ~~substrate~~ apparatus according to claim 4, wherein any two adjacently located metal structures are separated by a distance that is found within a range not smaller than 50 nm and not greater than 2,000 nm.

6. (Currently Amended) The ~~substrate~~ apparatus according to claim 5, wherein the distance separating any two adjacently located metal structures is found within a range not smaller than 150 nm and not greater than 1,000 nm.

7. (Currently Amended) The ~~substrate~~ apparatus according to claim 1, wherein ~~said~~ the metal structure is made of a metal selected from gold, silver, copper and aluminum or an alloy of any of them.

8. (Currently Amended) The ~~substrate~~ apparatus according to claim 1, wherein ~~said~~ the base is optically transparent.

9. (Currently Amended) A ~~substrate of a target substance detection element~~

~~to be used for~~ a detection apparatus for detecting a target substance in a specimen, utilizing surface plasmon resonance, comprising:

a target substance detection element, including: a base; and a metal film having an aperture and arranged on a surface of the base, ~~said in a localized manner~~; and a target substance capturing body fixed on a surface of the metal film, wherein the aperture ~~having~~ has a loop section or a crossing section, and the metal film has a thickness between 10 nm and 100 nm;

means for bringing the element into contact with the specimen; and

detection means for detecting the target substance captured by the element by irradiating the element with light emitted from a light source and observing transmission of the light.

10. (Currently Amended) The ~~substrate~~ apparatus according to claim 9, wherein it comprises a plurality of apertures that are spaced apart from each other.

11. (Currently Amended) The ~~substrate~~ apparatus according to claim 10, wherein any two adjacently located apertures are separated by a distance that is found within a range not smaller than 50 nm and not greater than 2,000 nm.

12. (Currently Amended) The ~~substrate~~ apparatus according to claim 11, wherein the distance separating any two adjacently located apertures is found within a range not smaller than 150 nm and not greater than 1,000 nm.

13. (Currently Amended) The ~~substrate~~ apparatus according to claim 1, wherein ~~said the~~ metal structure comprises an outer frame structure having an aperture and an inner structure arranged in ~~said the~~ aperture and spatially separated from the outer frame structure.

14 and 15. (Cancelled)

16. (Currently Amended) The ~~substrate~~ apparatus according to ~~claim 15~~ claim 1, wherein ~~said the~~ detecting means is an optical detecting means.

17. (Currently Amended) A method of detecting a target substance in a specimen by utilizing surface plasmon resonance, comprising:

a step of bringing a target substance detection element ~~according to claim 14~~ into contact with the specimen, the target substance detection element including: a base; a metal structure arranged on a surface of the base in a localized manner; and a target substance capturing body fixed on a surface of the metal structure, wherein the metal structure has a loop section or a crossing section, and the metal structure has a thickness between 10 nm and 100 nm; and

a step of detecting the target substance captured by the element when the specimen contains the target substance by irradiating the element with light emitted from a light source and observing transmission of the light.

18. (Cancelled)

19. (Currently Amended) The ~~target substance detection element~~ apparatus according to ~~claim 14~~ claim 1, wherein ~~said~~ the target substance capturing body is an antibody.

20. (Currently Amended) The ~~target substance detection element~~ apparatus according to claim 19, wherein ~~said~~ the antibody is an antibody fragment.

21. (Currently Amended) The ~~target substance detection element~~ apparatus according to claim 20, wherein ~~said~~ the antibody fragment is a multi-specific multivalent antibody.